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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,006	06/22/2001	Heinrich Schuler	200-0961	8513

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EXAMINER

AHMED, SAMIR ANWAR

ART UNIT

PAPER NUMBER

2623

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/888,006

**Applicant(s)**

SCHULER ET AL.

**Examiner**

Samir A. Ahmed

**Art Unit**

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8-16 is/are rejected.
- 7) ☒ Claim(s) 5-7 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

***Specification***

1. The disclosure is objected to because of the following informalities: "an apparatus according to claim 10" on page 3, line 15, should be changed to -- an apparatus according to claim 14--.

Appropriate correction is required.

***Claim Objections***

2. Claim 13 is objected to because of the language "in accordance with the method of claim 1" which means "in agreement with the method of claim1" does not clearly define whether the agreement is with all the steps of claim 1, some of the steps of claim 1, or similar steps of claim1. The Examiner suggests the language -- using the method of claim 1--. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 9, recites " wherein said step of applying the reference markers comprises the step of arranging the reference markers on an equalizing layer of the workpiece".

There is no recitation of such limitation anywhere in the specification or how to perform

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it. As a matter of fact that limitation contradicts the recitation on page 4, lines 26-32 which recites that "markers and rulers that are arranged on the support of the workpiece during photography are preferably disposed on equalizing or compensation layers having a thickness corresponding to the thickness of the workpiece. Thus, they are in the same vertical height as the markers and rulers on the workpiece", i.e., the markers are arranged on an equalizing layer of the support of workpiece and not on an equalizing layer of the workpiece as claimed.

5. Claims 1-4, 8-16 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for "arbitrary placing targets (markers) on the blank (workpiece) and its surroundings (workpiece support), the whole image area should contain targets (markers)" (see page 15, lines 4-11, Figs 3 and 4), does not reasonably provide enablement for "applying one or more reference markers to the workpiece" as claimed. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. One of ordinary skill in the art would not be able to calculate the location and orientation of a set of photographs by applying the reference markers to the workpiece only as claimed in claims 1, 13 and 14, because as recited in the specification on page 15, lines 4-11 and shown by the drawings in Figs. 3-4, in order to calculate the location and orientation of a set of photographs, the reference markers are placed on the workpiece and its surroundings (the workpiece support), the whole image area should contain the reference markers. Applicant can overcome this rejection by incorporating claim 5 in the independent claims.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4, 11, 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Martin (U.S. Patent 4,729,423) and Manthey et al. (U.S. Patent 5,642,293).

As to claim 1, a Martin discloses a method of determining the contour of a substantially flat workpiece Fig. 2, item 2, comprising:

applying one or more reference markers to the workpiece [at least one of the edges of the plate (reference marker) appear in the photographs in order to quickly and without ambiguity identify the tubes in the flat surface (col. 6, lines 53-60).

obtaining at least two overlapping photographs of the workpiece from different perspectives (col.6, lines12-16, lines 20-40);

photogrammetrically processing the photographs to produce a true-to-scale overall image (56) of the workpiece [the photographs are developed and printed in such a manner that the scale of representation of the plate is constant (col. 6, lines 40-43).

Stereophotogrammetric processing of the photographs based on the relative displacement and orientation of these photographs (col. 7, lines 5-10), i.e. an a true to scale overall image is produced] ; and

determining the contour of the workpiece from the true-to-scale overall image [the restored image (true to scale overall image) is used for measurements (col. 7, lines 25-34), measurements such as shapes (contours) and dimensions (col. 7, lines 59-61).

Martin discloses a conventional camera that uses a film, but discloses that the data obtained from the photographs can be input to a computer program (col. 7, lines 34-37). Martin does specifically disclose, digital photographs.

Manthey discloses a photogrammetry device that uses a digital camera (Fig. 3, 22), and two types of markers (Fig. 3, 30, 24) to determine the surface profile of a flat sheet metal 12. the digital camera is used to obtain two overlapping images from two different positions (col. 3, lines 27-34). Alternatively, a conventional photograph that uses a film camera or video camera could be taken and digitized. However, a digital camera is preferred over a conventional camera with digitizing equipment. Digitizing enables the use of a computer and is preferred (col. 3, lines 47-52). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the teachings of Manthey to modify Martin's method by using a digital camera or digitizing the conventional photographs in order to be able to input the photographs data in the computer program disclosed by martin, where the use of a computer is preferred.

As to claim 2, Manthey further discloses, wherein said step of applying the reference markers comprises the step of applying a plurality of length scales distributed over a surface of the workpiece [Fig. 4 shows reference markers with distance 39 is 5mm (length scale), that can be a wire frame shape instead of solid (col. 4, lines 15-16).

As to claim 3, Manthey further discloses, wherein said step of applying the reference markers comprises the step of applying a plurality of position-markers distributed over a surface of the workpiece [Fig. 1, shows positional markers 14 over the sheet metal 12].

As to claim 4, Manthey further discloses, wherein the work pieces are sheet metal parts (col. 3, line 2). However sheet metal parts of an automobile is an intended use for an existing product, which is not patentable.

As to claim 11, Manthey further discloses, the step of rectifying each of the overlapping photographs such that image planes of the photographs and workpiece are transformed onto each other (col. 7, lines 5-18).

As to claim 14, refer to claim 1 rejection.

As to claim 15, refer to claim 3 rejection.

As to claim 16, refer to claim 2 rejection.

***Allowable Subject Matter***

8. Claims 5-7 and 17 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

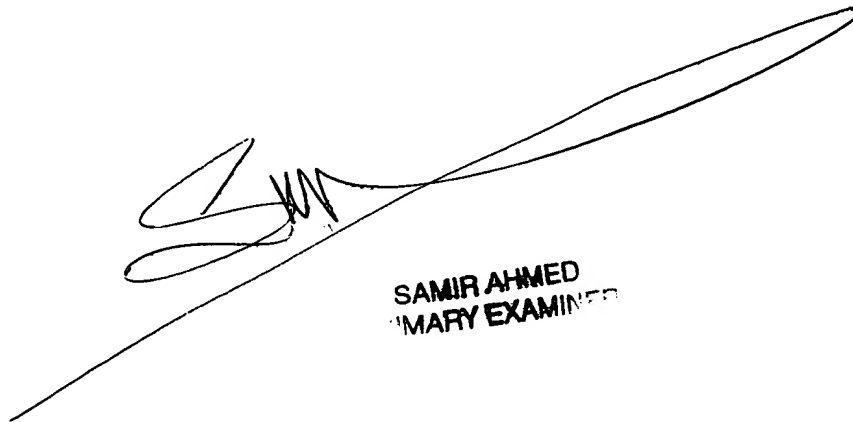
9. Claim 13 would be allowable if rewritten to overcome the 112, first paragraph rejection and the objection, and set forth in this Office action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samir A. Ahmed whose telephone number is 703-305-9870. The examiner can normally be reached on Mon-Fri 8:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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